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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,110	11/25/2003	Takayuki Nakamura	032135	4494

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EXAMINER

LIEW, ALEX KOK SOON

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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10/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/720,110

Applicant(s)

TAKAYUKI NAKAMURA

Examiner

Alex Liew

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

The amendment filed on July 30, 2007 is entered and made of record.

Response to Applicant's Arguments

On page 7, the applicant stated:

As such, it is respectfully submitted that neither of the applied references of Beaty and Watanabe disclose or suggest the features of claim 2 concerning *said first imaging means is configured so that said two imaging sections are arranged along said second axis or a third axis which is perpendicular to said first and second axes, and said imaging sections image said structural member in a direction of said first axis,*

said second imaging means is configured so that said two imaging sections are arranged along said first axis or said third axis, and said imaging sections image said structural member in a direction of said second axis, and

said third imaging means is configured so that said two imaging sections are arranged along said first axis or said second axis, and said imaging sections image said structural member in a direction of said third axis.

The examiner agrees with the applicant. However, in an updated search shows

Ohshima (US pat no 6,226,416) discloses the following limitations:

first, second and third imaging means, each of said imaging means comprising an imaging section, which images structural member to generate two-dimensional image data (see figure 6, elements 100, 101 and 102);

said first imaging means is arranged along said second axis or a third axis which is perpendicular to said first and second axes, and said imaging section image said structural member in a direction of said first axis (element 102 in figure 6, the x-axis is read as the first axis, the y-axis is read as the second axis and the z-axis is read as the third axis);

said second imaging means are arranged along said first axis and third axis, and said imaging section images said structural member in a direction of said second axis (element 101 of figure 6);

said third imaging means is configured so that the imaging sections are arranged along said first axis or said second axis, and said imaging section images said structural members in a direction of said third axis (element 100 of figure 6).

Ohshima does not disclose two imaging sections in each imaging means and model data generating means. Chung (US pat no 6,614,928) discloses two-imaging sections (see figure 1, elements 112 and 113) and model data generating means for generating three-dimensional model data including at least shape data, which define a three-dimensional shape of said structural member, on the basis of sets of two-dimensional image data, which are generated respectively by imaging means (see figure 1, element 142). In addition, Chung's 'parcel' in figure 1 is read as the structural member. One skilled in the art would include two imaging sections because to detect dynamic scenes, such as an object moving to generate accurate shape of the object; having only one imaging section is insufficient to capture dynamic scenes.

The examiner will make new grounds of rejections based on Ohshima and Chung.

DETAILED ACTION

Claim Objections

Claims 3 and 4/3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regards to claim 3, the examiner cannot find any applicable prior art and / or suggestion disclosing updating the three-dimensional model data of the while of said machine tool on the basis of the calculated coordinate position data in combination with the rest of the limitations in claims 2 and 3.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohshima ('416) in view of Chung ('928).

With regards to claim 2, Ohshima discloses the following limitations:

first, second and third imaging means, each of said imaging means comprising an imaging section, which images structural member to generate two-dimensional image data (see figure 6, elements 100, 101 and 102);

said first imaging means is arranged along said second axis or a third axis which is perpendicular to said first and second axes, and said imaging section image said structural member in a direction of said first axis (element 102 in figure 6, the x-axis is read as the first axis, the y-axis is read as the second axis and the z-axis is read as the third axis);

said second imaging means is arranged along said first axis and third axis, and said imaging section image said structural member in a direction of said second axis (element 101 of figure 6);

said third imaging means is configured so that the imaging section are arranged along said first axis or said second axis, and said imaging section image said structural members in a direction of said third axis (element 100 of figure 6).

Ohshima does not disclose two imaging sections in each imaging means and model data generating means. Chung discloses two-imaging sections (see figure 1, elements 112 and 113) and model data generating means for generating three-dimensional model data including at least shape data, which define a three-dimensional shape of said structural member, on the basis of sets of two-dimensional image data, which are generated respectively by imaging means (see figure 1, element 142). In addition, Chung's 'parcel' in figure 1 is read as the structural member. One skilled in the art would include two imaging sections because to detect dynamic scenes, such as an object moving to generate accurate shape of the object; having only one imaging section is insufficient to capture dynamic scenes.

3. Claim 4/2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohshima ('416) in view of Chung ('928) as applied to claim 2, further in view of Wannabe (US pat no 7,027,963).

With regards to claim 4/2, Ohshima and Chung disclose all features and elements discussed in claim 2, but do not disclose information to a movement axis and / or a rotation axis which is set with respect to said structural member. Watanabe discloses step of three-dimensional model data of said structural member include information related to a movement axis and rotation axis which is set with respect to said structural member (see column 6, lines 1 to 8, a motion program is use to move / rotate the three-dimensional image of the structural member). One skill in the art would include step of moving or rotating the structural member is because to inspect the structural member at all views to find if there is any defects, in order to correctly correct the defect.

Conclusion

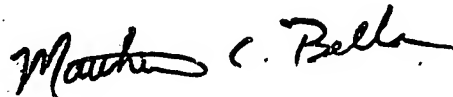
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alex Liew
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10/8/07



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